IOWA STATE UNIVERSITY
Digital Repository

Volume 18 | Issue 2 Article 7

1956

Chronic Pancreatitis

Phillip Pearson
Iowa State College

this was accomplished, the leg was wrapped with cotton. Splints were then applied, followed by plaster paris wrap bandages, in an attempt to keep the leg in a state of extension. The primary incision was packed with sterile gauze to control hemorrhage.

The animal had an uneventful recovery following surgery. The plaster cast was removed on the third day, and a Thomas splint was appied to hold the leg in a state of extension for seven more days. One million units of penicillin and 1.25 grams of streptomycin were administered intramuscularly each day for the first 5 days. Starting with the third day after surgery terramycin® in oil was injected in the open wound each day for one week. The wound was quite swollen with considerable exudation during the first week after surgery. However, healing took place rapidly and was complete when the animal was released. The vaginal prolapse also disappeared after the first week following surgery.

During the second week of recovery the patient began putting weight on the affected leg. Daily exercise showed that the animal was gaining more use of the leg each day. By the third week following surgery, the patient applied its full weight on the leg with full extension. The patient was discharged January 26, 1956. Although the leg was not restored to its functional state before injury, the animal could use it satisfactorily to move about.

— Hal Holst '57

View of leg 2 weeks postoperatively.

---

3 **Chronic Pancreatitis.** The pancreas consists of secretory cells and *islts of Langerhans.* The secretory cells produce an exocrine secretion abundant in enzymes which effect the digestion of proteins, fats and carbohydrates. The *islets of Langerhans* are endocrin organs and furnish one hormone governing sugar metabolism, insulin; and one concerned with lipid metabolism, lipocaic. Chronic pancreatitis is probably caused by such things as extention of acute pancreatitis, blockage of pancreatic duct by tumors or calculi or chronic infections in the gland. The condition is characterized by an atrophy of the pancreas, usually of just the secretory cells, thus causing an upset in digestion, due to the lack of pancreatic enzymes. In a few cases, the *islets of Langerhans* are also involved in the atrophy, thus causing symptoms of diabetes mellitus along with the upset digestion. Since the atrophy of the pancreas can't be corrected, the patient must be given pancreatic enzymes the rest of its life, in order to have normal digestion. Since the pancreas may continue to slowly atrophy over a period of months, the dosage of pancreatic enzymes may also have to be increased. Along with the enzymes, it is a good policy to keep the dog on a well balanced diet, either a commercial food or a home made diet. It is wise to add multiple vitamins, especially fat soluble vitamins, to the diet.

Chronic pancreatitis has been diagnosed in four different patients at the Stange Memorial Clinic since 1951. In September, 1951, a 1½-year-old female Border Collie was hospitalized for 16 days with this condition. An 8-year-old female

Terrier has been treated for chronic pancreatitis as an outpatient since April 30, 1955. On May 5, 1955, an 8-year-old female Beagle was hospitalized for 13 days. The most recent chronic pancreatitis diagnosis was made in an 8-year-old male Cocker Spaniel on Sept. 24, 1955. This Cocker was treated as an out patient.

Similar histories and symptoms were present in all four dogs. They all had loose, fatty, clay-colored stools. Polyphagia, polydipsia, polyuria, emaciation, and enlarged abdomens were present. All of the dogs were negative for parasite ova.

The following results were found in the blood analysis of the Border Collie: total red blood cell, 7,000,000; total white blood cell, 20,600; eosinophils, 400; stabs, 4,900; segments, 12,300; lymphocytes, 300; and hemoglobin, 14.65 Gm. or 101%. The 8-year-old Beagle had the following blood analysis: total red blood cell, 7,700,000; total white blood cell, 11,540; eosinophils, 700; stabs, 3,200; segments, 6,000; monocytes, 200; lymphocytes, 1,600; and hemoglobin, 11.88 Gm. or 81.9%. Also present in the Beagle's report was a blood sugar level of 200 plus, mg. The urine sugar was 1 plus on May 23, 1955.

The x-ray film method was used to help confirm the diagnosis of chronic pancreatitis in all these cases, except for the Border Collie. This test was conducted in the following manner. A small amount of stool was placed on an undeveloped piece of x-ray film for one-half hour. The feces were then washed off gently and a check was made to see if the gelatin layer of the film was digested. Since the gelatin was still present, it was assumed that the pancretic enzymes were not present in these three dogs. This test was run several times on each dog to confirm the diagnosis.

All four of the above animals are still living and are under continuous treatment to replace the missing pancreatic enzymes. The Border Collie was treated twice daily with a tablet containing ox bile, pancreatin and pepsin, while in the clinic in 1951. The above tablet, a product of Eli Lilly and Co., Indianapolis, Indiana, is no longer available, so the dog is now on panteric,® B. I. D., (5 gr. pancreatic extract tablets manufactured by Parke, Davis & Co., Detroit, Mich.)

Panteric, B. I. D., before meals, was dispensed to both the 8-year-old male Cocker Spaniel and the 8-year-old female Terrier. Along with this, the Terrier is being fed a diet made up of ½K/D® and ½ P/D®, (dietetic dog food manufactured by Hill Packing Co. of Topeka, Kansas) plus 1 dr. of paladac® (Parke, Davis and Co., Detroit, Michigan.)

On May 24, 1951 while in the clinic, the 8-year-old Beagle was given 1 can of K/D dog food, 1 tablespoon MWR-352®, (a nutritional supplement by Jensen-Salsbery Laboratories, Inc. of Kansas City, Missouri) 8 units of protamine zinc insulin® I. M. (Eli Lily and Co., Indianapolis, Indiana) and 1 panteric 5 gr. tablet. Treatment continued the next day. Following these 2 days of treatment, the bowels were reported normal, the appetite was fair and the urine sample was negative for sugar. On May 25, 1955, the dog was fed K/D and two panteric tablets. On the 26th, the color and consistancy of the stool looked practically normal. The dog was continued on K/D and two panteric tablets until May 29, 1955, when it was discharged from the clinic.

— Phillip Pearson '56

4

Rib Resection in a Bovine. On December seventh a 6-year-old Holstein cow was admitted to Stange Memorial Clinic as a "Hardware" suspect. Physical examination revealed a slightly elevated temperature, absence of pain in the sternal region, increased respiratory sounds over the entire right lung, absence of respiratory sounds in the left lung, and a rapid, weak heartbeat. The jugular pulse was very distinct and the subcutaneous abdominal vein on the right side was greatly distended. Blood analysis revealed a white blood cell count of 26,000 indicating a marked leukocytosis. A differential white count revealed; immature